UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK
----------x

FEDERAL TRADE COMMISSION,

Plaintiff,

v. 23 Civ. 6188 (ER)

IQVIA HOLDINGS, INC. and
PROPEL MEDIA, INC.,

Defendants.

Trial
----------x

New York, N.Y.
December 1, 2023
9:00 a.m.

Before:

HON. EDGARDO RAMOS,

District Judge

APPEARANCES

JENNIFER FLEURY
VARNITHA SIVA
MICHELE SEO
WADE LIPPARD
STEPHEN MOHR
JESSICA MOY
CORY GORDON
JORDAN ANDREW
STEPHANIE BOVEE
LISA DeMARCHI SLEIGH
LILY VERBECK
HABIN CHUNG
WILLIAM SOHN
CHRISTINA PEREZ
Attorneys for Plaintiff Federal Trade Commission

APPEARANCES
(continued)

WEIL, GOTSHAL & MANGES, LLP
Attorneys for Defendant IQVIA Holdings, Inc.
BY: CHANTALE FIEBIG
MARK A. PERRY
SARAH M. STERNLIEB
LUKE SULLIVAN
ELIZABETH RYAN
ANDREW S. TULUMELLO
JOSEPH EHRENKRANTZ
BAMBO OBARO

-and-

CLEARY GOTTLIEB STEEN & HAMILTON, LLP
BY: RAHUL MUKHI
CLOTILDE LE ROY
LEAH BRANNON

MORRISON & FOERSTER, LLP
Attorneys for Defendant Propel Media, Inc.
BY: ALEXANDER P. OKULIAR
DAVID J. SHAW

Also Present:

Geoffrey R. Chepiga
Joshua Soven
Paul Weiss, Rifkind, Wharton & Garrison, LLP
Attorneys for Interested Party Veeva Systems, Inc.

(Trial resumed)

THE COURT: We have a couple of minutes before 9 a.m. Is there anything that either side wish to raise?

Ms. Fleury.

MS. FLEURY: Yes, your Honor. Based on defendants' representations, the remaining witnesses for their side are, first, Google, then Mr. Resnick of IQVIA, and then Dr. Juna. The government will rest its case now.

THE COURT: At this point?

MS. FLEURY: At this point.

THE COURT: Is there like a Rule 29 equivalent of FTC preliminary injunction hearings?

MS. FLEURY: I don't think so. This is what we are going with, your Honor.

THE COURT: Very well. Good.

Anything from you, Ms. Fiebig?

MS. FIEBIG: No. Thank you, your Honor. We are ready to begin whenever you are prepared to go forward.

THE COURT: I am ready.

MS. FIEBIG: Thank you very much. IQVIA calls for its first witness this morning by deposition designation Mr. Sam Temes. He is the managing director of global product and sales strategy at Google.

THE COURT: How do you spell his name?

MS. FIEBIG: The last name is T-e-m-e-s. First name

Sam.

MS. PEREZ: Your Honor, if I may, I'm Christina Perez. I represent the Federal Trade Commission.

Before the video plays, the FTC would like to note for the record certain circumstances surrounding Google's testimony. May I explain?

THE COURT: Sure.

MS. PEREZ: Thank you.

On Wednesday, Google's witness, Mr. Samuel Temes, and his counsel came to the courthouse and waited outside this room to be called to testify.

If you remember, however, defendants chose to show two videos, taking nearly an hour, of Eversana and Throtle, instead of calling Google live.

Google was also prepared to return to the court on Thursday for live testimony. However, defendants have chosen to present them only via video designations.

To ensure the record is clear, we would like to present a binder to the Court with the FTC exhibits that were used during the deposition, as well as one additional document from Google's website, which the FTC has already shared with the defense counsel and that we intended to use during the cross-examination. We believe this document is important to understand the totality of Google's testimony and will support what he says about the policies that you care about today.

THE COURT: Are you referring to a specific document or the multiplicity of documents in the binder?

MS. PEREZ: There were multiple documents in the binder. All of them except for one is used during the deposition that you will see today. We would like to have approval to add this additional document that we would have used in cross-examination that we believe would support the testimony.

THE COURT: Any objection?

MS. FIEBIG: No, your Honor. Although I'd also appreciate the opportunity to provide a note of context on documents.

THE COURT: You want to do that now?

MS. FIEBIG: If the FTC is done, yes, please.

THE COURT: Ms. Perez.

MS. PEREZ: I am done. Thank you.

THE COURT: Ms. Fiebig.

MS. FIEBIG: Thank you, your Honor.

We just wanted to share that the deposition video that will be played this morning runs about 45 minutes. It was taken in October, about six weeks ago, by Mr. Obaro for IQVIA.

And you will hear during that deposition testimony reference to a declaration that the government obtained from Google in May of 2023, so about six months ago. That declaration is available to you in the binder that we will

approach to provide, with your permission, at PX-0009. It will display during the course of the deposition video, and you will hear the witness' testimony clarifying that declaration.

THE COURT: OK.

You want to give me your documents?

MS. FIEBIG: Yes. If we may approach, we will as well.

THE COURT: Yes, please.

MS. FIEBIG: Your Honor, while those are being passed up, Google has requested that these proceedings be sealed for this portion of the testimony, although IQVIA's in-house counsel may remain.

THE COURT: Again, if you are not part of the litigation teams, please exit the courtroom.

Who is IQVIA's in-house counsel? I see a bunch of hands over there.

MS. FIEBIG: Yes. There are three present. Ms. Maureen Nakly is here, Mr. Harvey Ashman, and Mr. John O'Toole.

THE COURT: I have seen them throughout the proceedings.

Very well. It appears that folks have left the courtroom, so I think we can begin.

SAM TEMES, by video.

(Video played)

THE COURT: Does that complete the presentation?

MS. FIEBIG: Yes, your Honor.

IQVIA is prepared to call as its next witness Mr. Jon Resnick.

THE COURT: Very well.

MS. FIEBIG: Who is outside of the courtroom but who will be escorted in momentarily. He is the president of IQVIA's U.S. and Canada business.

THE COURT: We are going to open the courtroom, correct?

MS. FIEBIG: Yes, your Honor.

Your Honor, while the witness is arriving, may we approach to provide witness binders?

THE COURT: Absolutely.

MS. FIEBIG: Thank you.

JON RESNICK,

called as a witness by the Defendants,

having been duly sworn, testified as follows:

THE COURT: Ms. Fiebig.

DIRECT EXAMINATION

BY MS. FIEBIG:

Q. Good morning, Mr. Resnick. How are you?

A. Good morning.

Q. Thank you for being here and for joining us for the duration of these proceedings.

I was hoping you could start by introducing yourself to the Court and sharing a bit about yourself on a personal level.

A. On a personal level, sure. Jon Resnick. I'm the president of U.S. and Canada for IQVIA. Chicago native. Lived a little bit everywhere: New York, Washington, D.C., London in the last decade or so in Essex County, New Jersey. Wife, three kids. Avid runner. Got to do the Brooklyn Bridge this morning. So thank you.

Q. Mr. Resnick, have you always worked in healthcare?

A. Yeah. My entire career, which is frighteningly now 30 years, is all in healthcare.

Q. Could you share with the Court a little bit about your professional background before you joined IQVIA.

A. Yeah. I would talk about my professional career probably in two tranches because I have really only had two jobs. I started my career on Capitol Hill working in the Senate Finance Committee.

Actually, coincidently, for this building's namesake, I spent five years working for Senator Daniel Patrick Moynihan from New York, who was a big influence in my life. He wrote my applications to business school. And a variety of roles of doing -- I started as a staff assistant and worked my way up to a professional healthcare and Social Security staffer writing legislation on things like Medicare prescription drugs and

things like that.

Took a couple of years to go to business school in Chicago. Went to Northwestern, where I focused on management and strategy and healthcare.

And I came out of business school and moved to New York City and took an entry-level management consulting job at a predecessor company of what was -- what is today IQVIA, and I've been with IQVIA now, this is my 22nd year.

Q. You started with IMS 22 years ago as an entry-level consultant?

A. I started as an entry-level consultant 22 years ago. I kind of worked my way up. Ran a market-access consulting practice, which was about how to get access to medications for patients. I worked my way up to run that team and that consulting business. I was asked to move to London to run and create a business there. Ended up running our management consulting business in Europe.

And then came up with an idea for a different type of business, a business called Real World Evidence, which was a slightly different type of business, which I launched in 2011 within IQVIA, which has grown today to be about a billion dollars, and led then to leading the merger between IMS Health and Quintiles. And then in 2019, I was asked to run our operations in the U.S. and Canada.

Q. I'd like to talk a little bit more about the Real World

Solutions business, because this is the first opportunity the Court has really had to hear about IQVIA's business. Could you just describe in practical terms what the Real World Solutions business does and maybe provide a couple of examples, if you could.

A. I will. I'll try to keep it simple. We have heard the term real world data used a number of times, which means all the data that's collected from everyday use, from EMRs, medical records and from insurance companies and pharmacies, and we focused a lot on the digital advertising use case, which is what these hearings have centered on.

But Real World Evidence is different. It's taking all of that available information and applying epidemiological and statistical techniques to help solve challenges as a broader healthcare level. So taking all of that data and producing it for regulators so they understand which drugs are safe, which drugs are effective. It means going and working for pairs and understanding which drugs should be on formulary and which drugs shouldn't be on formulary. It means going and working with professional associations and hospitals about developing clinical guidelines and understanding best path of treatment.

Real World Evidence is really making sense of all of this kind of data exhaust or data that's collected every day and applying it to kind of mission critical needs in the healthcare sector.

Q. An example of that would be, for example, trying to figure out how breast cancer drugs might apply more broadly than they are understood to apply?

A. Yeah. That is -- that's a good example which I think I've shared with you in the past. This is a great example of real world data, and Real World Evidence plays a role.

The gold standard is clinical trials. You hear a lot about how you run a randomized clinical trial. That trial enrolls a population. They pick everybody who is enrolled. They look a certain way. They have a certain amount of parameters. They monitor their use on that drug during the course of the trial. They report measurements. And then they come up with a conclusion.

But what happens in the Real World is different. People look different. You have different ethnicities, different genetic makeups. People forget to take their medicine one day, they are not getting a blood test every day. There is a whole body of evidence that's created which is, how do people fair in the real world. How do they actually perform.

The example that you raised on breast cancer is a great one. Everyone thinks of breast cancer as a disease that predominantly affects women. Obviously, that's the great majority who are affected by it. But there is a small but seriously ill percentage of men as well who get breast cancer.

But a pharmaceutical company is not going to run a trial in that small of a population. They run the trial in the population for women.

And so the question before that we were asked to look at is, can we use the available data to look at men who have taken breast cancer medications and treatments and can we understand its effectiveness and, as a result, working with the governments and FDA and some other parties able actually to get a label extension to include men in the label as well.

Q. I understand that the Real World Solutions business can also do things with data like helping to identify at risk populations. Is that one application?

A. Yeah. There are so many. You are going to have to stop me in a moment.

This would be another practical application, this example, and we just won a major award in artificial intelligence, in machine learning for this initiative. We are working with the hospital system in Chicago, and the hospital system wanted to do a better job of observing patients who may be at risk of domestic abuse or for food insecurity who are presenting to their emergency rooms.

And the way that typically happens is, they rely solely on the observation of a nurse or a physician who has that care. We were able to build an algorithm, natural language processing, that helped make sense of all the

available data of all their encounters and get far more precise in the way they were able to do interventions. So, as a result, their interventions, when they could deploy a social worker to meet with the patient in the ER, went up by 65 percent.

Q. The Real World Solutions business is one part of IQVIA's business. You have also talked a little bit about clinical trials. Is that a significant part of IQVIA's business?

A. It has been a little bit surreal to be sitting at the table the last few days because we have been talking about digital advertising, digital advertising, digital advertising. Digital advertising is a tiny percent, less than 1 percent of our business.

We are a healthcare company. Our mission is to improve the healthcare marketplace. And the average employee in our company is in clinic working directly with providers, directly with hospitals, directly with patients. So the clinical trial business that you reference is the biggest, by far, business within IQVIA.

Q. If we could go to the first demonstrative, Mr. Resnick.

Does this reflect the various business segments at IQVIA?

A. Yes. These are the three externally reported segments: The clinical trial business, our technology and analytics business, which includes consulting and analytics, and our data

products, and then our contract sales and medical solutions, which is in-home patient care and other outsourced services.

Q. When IQVIA has a pharmaceutical company as a customer, for example, or as a client, is it possible that the pharmaceutical company would work with IQVIA across one or more of these verticals?

A. It's entirely possible, in fact likely that most of our clients would work or touch us in one or multiple places.

Q. So you mentioned that an average IQVIA employee might be working directly in a healthcare setting, in a hospital or a clinic, is that right?

A. That's correct, yeah.

If I took the average, the mode, they are not behind an ad tech board. The average employee within IQVIA is a nurse or a clinical research associate who is out working directly in the healthcare setting itself.

Q. I'll assume from that that many IQVIA employees were directly involved with the COVID-19 pandemic, and I was hoping you could tell the little bit Court about IQVIA's work during that time.

A. That's very true. During Operating Warp Speed, during the COVID pandemic, we enlisted the full weight of our company. We operate in about a hundred countries around the world. We ran more than 200 clinical trials for therapeutics and vaccines and different diagnostics. Warp Speed was the government-sponsored

initiative. We worked with just about every, if not -- we did work with every of the developed products that you would know.

We also -- it wasn't limited to clinical development. We had teams -- I mentioned our teams kind of out in the fields. I had teams training smaller hospitals and regional hospitals how to use ventilators in their ICU. If we go back to those early days of April and May, where access to ventilation was the -- and ventilators was the biggest issue, we were hired by the manufacturers to actually go in and to train the local hospitals how to use it.

We had mobile lab devices. We have a clinical lab business. And our lab business was providing on-the-spot COVID treatment -- I'm sorry -- COVID diagnostics. We partnered with the UK government to provide all of the data that was around. We got to Omicron, all the different variants. All the data collected was collected by our teams.

And personally in the United States I had -- if you think about the disruption that was underway. Patients stopped going to offices. Patients stopped getting their prescriptions filled.

So we were hosting -- initially weekly, then biweekly, then monthly -- phone calls with just about every healthcare and president looking at the real-time data to understand how patient care was changing and identifying how we could help to fill in some of those patient journey gaps.

Q. That takes us all back to a heavy time.

Is that sort of the work that your kids are most proud of when you talk about IQVIA?

A. I'm sure if my kids were here, they would be rolling their eyes right now. The work they find interesting and the work they like to tell their friends that their dad does is on a similar theme, but slightly different.

If you remember, for example, in Orlando, when the NBA bubble opens, that was IQVIA's teams who helped our epidemiologists and our teams to set up the protocols for reopening the NBA. We did the same with the IOC and the Olympics. And we have a longstanding relationship with the NFL and the NBA where we do all the injury surveillance. If you think about every day the athletic trainers upload their data on injuries to a very sequestered group within IQVIA who helps monitor trends, so they can answer questions like, concussion improvement and its status, Thursday game versus Sunday game, grass versus turf, whole range of questions that those teams will work on.

THE COURT: Does IQVIA know whether Aaron Rodgers will play this year?

THE WITNESS: The reason I mentioned it was a highly sequestered team, we have to be incredibly careful, given that. There is a very small group who has access.

I would be shocked if he did, though.

Q. What you have described, Mr. Resnick, sounds like an incredibly diverse business. As president of that business, can you share with the Court sort of the scope of your responsibility?

A. Yeah. I have responsibility for the U.S. and Canada, which is roughly 50 percent of IQVIA's global business. By responsibility, I mean strategy, P&L, running sales teams, overseeing and accountable for business in this reason.

Q. You set the strategy and you bear the ultimate responsibility, correct?

A. I set the strategy. As a manager and say leader, I like to surround myself with very strong people and empower them to do their job. You met, for example, Mr. Margolis, who is a super competent professional, but I am ultimately responsible and accountable for decisions that are made here.

Q. You are in leadership. You're certainly not an expert on things like programmatic advertising, are you, Mr. Resnick?

A. Anything I thought I knew about programmatic advertising, after watching for the last two weeks, I'm a little bit confused by. I have seen 25 different definitions of things, but I'm not an expert. I have been involved in the strategy-setting here for the last two years. I'm familiar, but not -- I have foreseen some of the depth and capability of some of the detailed teams that have testified over the last two weeks. I would not call myself an expert.

Q. As you have said, most of this hearing has been about data sort of vaguely referenced that can be used in programmatic advertising.

I just want to ask, part of IQVIA's business is providing quality data for research, right? We have established that.

Approximately what percentage of IQVIA's business relates to licensing healthcare data?

A. It's actually quite a small percentage. I'd say less than 10 percent of our business is around licensing data. The 90 percent is much more akin or aligned to what I just communicated.

Q. The Court has heard suggestions that IQVIA's data is sometimes preferred by a pharmaceutical companies over other data options in the market. What's your understanding of why IQVIA's data might be valued by pharmaceutical companies?

A. I think -- I heard from a number of other witnesses this week. We are quite proud of the data foundation and the data that we built, we listened carefully to our clients, we understand what the market needs, and we work really hard to curate, which is a term that has been introduced this week, and to clean up and make the data as useful and as accessible as possible.

The other thing I note, and I have been kind of watching it, the word data has been used in very general terms

over the course of the last two weeks, as I've sat here. We are actually talking about dozens of different use cases that span a spectrum. To understand truly what data is, you really have to get into the individual-use case and understand the range of options that exist within that use case.

(Continued on next page)

THE COURT: What is a use case?

THE WITNESS: So you will have very different -- I mean, the case that's been talked about here is a digital use case. We talk a little bit about audience and we talk a little bit about identity and measurement. Those are all different types of data, different ones that may be very different, what a sales team is using to measure sales force effectiveness which may be very different than the data I described to you which is going to get submitted to the FDA for an evidentiary reason. So the word "data" is used, but in fact there are dozens of different data sets that all have kind of a relevant time and place.

BY MS. FIEBIG:

Q. And is IQVIA the only company in the market that's sort of culling and define healthcare data?

A. By, no means. We have heard this week from a number of providers of data who are in this market. Particularly, frankly, in the digital space here, we are far, far from the only company who is producing data.

Q. Okay. So I understand from your testimony that less than ten percent of IQVIA's business is licensing healthcare data and that only about one percent of IQVIA's revenues relate to programmatic advertising at all, is that right?

A. Yeah, less than one percent.

Q. Okay. The government stated in their opening statement

that 85 percent of pharmaceutical companies rely on IQVIA to build their NPI target lists, direct sales, and marketing outreach. Is that true, Mr. Resnick?

A. I can't -- I don't know where that data point would have come from. It doesn't -- it's not consistent with -- it's not something we measure, nor would I know how to measure it, and it is quite improbable.

Q. So let's talk about the digital advertising business, then, that's been discussed this week, recognizing it's a small part of IQVIA's overall business.

Is there a group at IQVIA that oversees the digital advertising aspect of the business?

A. Yeah. We have created a group called the digital enablement group.

Q. And when was that group created?

A. Digital enablement was founded in summer of 2022, last year.

Q. So just last summer?

A. Last summer, yes.

Q. Could you tell the Court a little bit about the trends that you were seeing in the market that led to the establishment of the digital enablement group as we were all coming out of the COVID pandemic?

A. Yeah. I guess I point to COVID, obviously the way I think of COVID is COVID accelerated trends that were happening over a

long period of time. But quite acutely, we saw patient care change. Instead of going to an office, it moved to telehealth, and you were having Zoom doctor visits.

You had other fundamental changes, where sales reps who used to go into offices and visit directly with the doctor and bring in -- the caricature, bring a doughnut to the office staff, that wasn't happening anymore, so they needed new ways to communicate. And this is part of a longer trend, but you really saw a tipping point during COVID where -- or trend break, where it really was accelerated into a different way.

At the same time, you have generational changes, where you have younger doctors, who are much more digitally savvy, prefer to interact with digital as opposed to personal engagement.

All of that crystallized what we saw. As a healthcare company, our job is to get the right treatment to the right patient at the right time, and if the channels that we are pursuing are analogue channels and our patients and our doctors are using digital channels, we have got an obligation to meet them where they are to ensure that the right healthcare options are being delivered.

Q. So the Court heard from Mr. Margolis, who you have mentioned, as well, and he testified just before this Thanksgiving break because he is now CEO of another company and couldn't be here this week.

Mr. Margolis testified that he came over to your house a few weeks before Thanksgiving about two years ago. Do you remember that evening?

A. I remember. Yeah, I remember it well.

Q. And can you tell us what drove Jay to come to your house and what he was so excited about?

A. Yeah, it was November -- it was probably two years ago, maybe two years ago two weeks ago, early, mid November, and Jay had two meetings that week. He met with the DeepIntent team and the Lasso team. And he came over. He said he was just leaving the meeting. He couldn't wait. You've got to -- we've got to talk about this.

And he drove over to the house, he sat down at the table, and the two of us spent the next hour to hour and a half sketching, somebody pointed out, literally on a napkin what changed in the way we were thinking about programmatic.

Earlier we had done the acquisition of DMD, but DMD was really about e-mails. There is some reference to programmatic in the business case, but it was a small percentage of what that overall business was. And I think, as we thought about it, we thought about it historically, we thought about it being a data provider to the market. But Jay's idea was about how to participate more fully after meeting with an operating platform and a DSP team, a broader way for IQVIA to help shape that patient and physician

engagement.

Q. Okay. So let's take a look at the timeline if we could. So Mr. Margolis had a conversation with you at your house a couple weeks before Thanksgiving two years ago?

A. Yes.

Q. At that point the company had already acquired DMD, which you considered to be primarily an e-mail asset, correct? I think we can add DMD to the slide. There we go.

So after this discussion with Mr. Margolis, did you undertake any research of your own to try to understand the industry?

A. So if I am claiming not to be digital expert today, I certainly was not a digital expert in November of 2021. So Jay and I left, and I had a very clear ask of Jay, which was, let's lay out how this market works. Who is in the healthcare digital market? Who are the different stakeholders? What's the financial flow of money? How do people make money in this space? What are the spots that exist that would make sense for IQVIA? Given, you know, what we do in our business, what would make sense as a potential opportunity for us?

So that's what I asked Jay, and then I went away myself and did my own research, which I am inclined to do, and spent the entire weekend just trying to understand everything I could about digital advertising, about the different stakeholders and different players, and, you know, literally

spent the weekend trying to craft -- kind of learn as much as I could.

Q. So coming out of that meeting, you started trying to do some of your own research to educate yourself and you asked Jay and the team to do some diligence to understand the industry, correct?

A. That's correct.

Q. And then after the holidays, did Jay and the team present to you some additional information about the programmatic advertising industry?

A. Yeah, they did. They spent the better part of December working through a strategic opportunity map and they came and presented to me, I don't know, in the middle of June -- I'm sorry, middle of January what is the range of strategic options and a perspective, just like I asked them, on the flow of funds and what stakeholders look like.

Q. Okay. Let's take a look at the first presentation they made to you, Mr. Resnick. Are you familiar with this deck?

A. Yes, I recall this deck.

Q. Okay. Let's look at slide three.

How would you describe what's reflected here?

A. This was the initial time that we sat down and the team presented to me what a broader digital advertising strategy could look like. We talked through the broader $13.6 billion marketplace which was rapidly growing. We talked about

healthcare being quite nascent in its use of digital approaches. We talked about the relative opportunity both on the DTC side and on the provider side here, and we talked about the different channels that exist and our initial market opportunity assessments. We were looking across all of these channels, across banner and social, e-mail, search, and connected TV.

Q. And is IQVIA Media referenced on the left there, is that a separate company or an existing company?

A. No. This is an initial vision document that was created that January. You know, the digital enablement team would have been an internal incarnation of this.

Q. Let's look at slide 13. Do you remember seeing this for the first time?

A. I do.

Q. And is this an overview that Mr. Margolis and his team prepared to give you information about the competitive landscape?

A. Yes. This is the initial participant landscape that I was presented.

So, your Honor, if you think about -- you asked a question to the expert yesterday about the vertical stack. This is the vertical stack reflected horizontally with the agencies on one end and the technology that enables it going through the middle, and the publishers on the end. And the

discussion that we had at this point was what is -- how to reach the dynamics in each of these segments, who were the players across each of it, and which -- within this $13 billion opportunity, which were the best opportunities for IQVIA.

Q. Okay. And in the data and identity column, do you see some competitors listed there?

A. I do.

Q. And have we heard from some of those competitors this week?

A. I think we have heard -- in one form or another, we have seen just about every name up there in that board, either there or on the board behind us, yes.

Q. Many of them have been discussed this week, but would you say that this list is exhaustive?

A. No, by no means. In fact, this document is from early '22. We have seen a number of new entrants even since this point. But it was never -- as the footnote says, it was never meant to be exhaustive.

Q. Why don't we look at slide 14.

Mr. Resnick, could you describe to the Court why there are some DSPs listed as health specific DSPs in this slide while others are listed as non-healthcare specific?

A. I think the terminology this week that I have heard used is general DSPs as opposed to non-healthcare specific DSPs, but

the question I had for the team was if we are going to look to take opportunity both on the DTC and on the HCP side, you know, who are we going to be -- who are we going to be competing with, who are the other players in the space?

My strong view on this market over the next couple of years is that integration between those two campaigns is going to be essential, and as we have looked at it, we wanted to understand both those who have spent more time and identified the positioning into healthcare businesses and those at the time who are generalists but we know are also offering products to the healthcare market.

Q. So when you reviewed this deck in January of 2022, was it your assessment that it was actually a competitive marketplace but that there might be opportunities for IQVIA?

A. We knew this was going to be an incredibly competitive market, and we also knew that this market was going to change multiple times over the next few years. We have kind of gone in eyes wide open with that approach, and we knew from the get-go that there would be smaller, more niche players and bigger players that we would have to contend with as we worked through this opportunity.

Q. I would like to jump ahead just a few months later. The IQVIA board of directors——we can go to the next slide——was presented with a deck titled "Project DOE and Project London," which we have heard this week refers to Lasso and DeepIntent.

Could you describe to the Court what the purpose of that deck was?

A. So in March of '22, so this is two months after the initial strategy framing by Jay and team, you know, part of that strategic framing was asking the question who could we partner with and/or potentially do some type of strategic deal, like an acquisition, to help jump start our capabilities. And we had zeroed in on two companies which initially we thought were quite similar. I think we kind of later realized that they are actually quite different and quite nuanced in terms of what they do. But this was the initial opportunity to talk to the board about the movement more broadly into digital advertising and to socialize with the board that we were considering looking at these two companies as potential strategic partners or acquisitions.

Q. Okay. Let's look at slide 17. Mr. Resnick, does this reflect the evolution in the thinking about whether or not DeepIntent and Lasso had different and complimentary capabilities?

A. This certainly reflects our perspective in March of 2022, which is still largely consistent, probably nuanced today. But, yeah, it kind of shows the -- you know, on the DeepIntent side DSP, strong DTC business, had experience with connected TV, it built out those capabilities.

On the Lasso side, not a DSP, an operating platform,

strong relationship with publishers.

So this shows kind of the relative complimentariness of those two businesses.

Q. So Lasso was an omni channel platform that had been focused in HCP, and then DeepIntent actually had its own DSP and had a larger presence in connected TV and DTC, is that right?

A. That's correct.

Q. Okay. Why were the DTC capabilities so important to IQVIA?

A. You know, so I could answer that at a couple levels, but to try to be brief, first of all, if you think about the mission of what we are trying to accomplish, we want to communicate both to HCPs and to patients. We want to make sure that they all have all of the information they need to get best in care.

Second, if you think about the relative opportunity, the HCP side of this is a smaller -- still large, but a smaller overall opportunity. The vast majority of the market from a business standpoint is sitting on the DTC side. And I think we know, looking -- you asked the question before about the big players with the really strong DTC touch. You know, they will get to the -- they will be moving in, and we have seen that. So the ability to -- the ability for us to have capabilities that span was essential to be relevant.

Q. Were there decks prepared after this early deck before Lasso was acquired about the deal?

A. Yes.

Q. I think we can add those to the timeline.

Were there also decks prepared after the transaction with Lasso was completed that discussed the acquisition of DeepIntent?

A. Yes.

Q. And Mr. Resnick, in any of these decks, in any board meeting, in any board presentation, was there ever a suggestion that IQVIA would acquire DeepIntent and then foreclose data?

A. Absolutely not.

Q. And in any of these decks or in any board meeting or any board presentation, was there ever any suggestion that IQVIA would acquire DeepIntent and then raise prices?

A. Our strategy is data everywhere and there has been no discussion and we have no strategic intent to do that.

Q. Okay. Well, the Court has heard suggestions from the FTC that the proposed acquisition of DeepIntent is just part of a long line of acquisitions to dominate digital healthcare advertising. Do you agree with that?

A. There was a -- there was a mentor of mine who told me once that there is no such thing as strategy. Strategy is kind of looking in the rearview mirror and weaving together a story.

So I could see how somebody could create a narrative around this, but it simply does not reflect the way this happened. We bought an e-mail business with a small programmatic capability. We continued to evolve our thinking

and continued to understand the opportunities. We continued to observe a change in healthcare market, and we have continued to evolve the way that we are thinking about it.

Q. And if someone were to set aside the formal presentations and look through some of your other documents and e-mails, might they see some references to other potential acquisitions that are either like serious proposals from bankers and others and some that are sort of just in jest?

A. Yes, a hundred percent. You know, part of my job. I'm constantly assessing the competitive landscape. There is a cottage industry just down the road here of investment bankers and M & A specialists who send me sims on a daily or weekly basis with new companies.

We heard the expert yesterday or two days ago testify venture capital and private equity money flows in with a thought that a strategic would buy it. So you will see lots of that discussion. You will also see the reality of behavior, that it's a very small, small, small percentage, maybe -- you know, I don't want to put a number on it, but very, very, very small percentage that is a serious conversation and even smaller percentage that is -- that goes into being acquired.

Q. Okay. Well, let's return to this deal and some of the benefits that IQVIA understands might result.

Are there benefits and efficiencies that you understand could be achieved through the acquisition of

DeepIntent?

A. Yes. We believe there are considerable efficiencies. On the cost side, there are synergies and efficiencies that are driven from the ability to have an incremental option on the DSP side. Lasso rents its space from Microsoft Xandr today, so we pay a premium on that. So the ability to create an option for our clients that would allow that to be done at a non-marked up cost would create synergy.

And the other place is data. You know, although our strategy is very clear, I will say again, is data everywhere, by providing data on our platform, we think that there will be an opportunity to get it without markups that other people, that other participants would put on top of it, so incremental efficiencies.

Q. So there may be some cost savings.

Do you also expect that IQVIA may be able to provide better service to its pharmaceutical customers and others?

A. Yes, 100 percent we believe that. Like ultimately, as we have heard consistently from the experts, we have very savvy agencies, we have very savvy buyers, and they pick and choose what they want to do to optimize their own campaigns and their own client relationships. But we do believe that we can provide a suite of services that will be competitive and that will help them in executing what they need to do.

Q. And will the combination of HCP and DTC capabilities help

improve healthcare outcomes from IQVIA's perspective?

A. You know, as we stated today, we are a healthcare company. We are not an ad tech company. And that's the objective here. You know, our goal internally is around patient care and we believe that being able to get an informed consumer and an informed HCP with the right information at the right time will lead to better outcomes.

Q. Okay. Well, the government has suggested that if we set those aside that actually when this transaction closes IQVIA intends to restrict its data products so that data can't be used on other DSPs, and I just want to ask you, as the head of the business for the U.S. and Canada, does IQVIA intend to do that?

A. Absolutely not.

Q. And was there ever a single discussion between you or Jay or the board that IQVIA would create a walled garden?

A. Not a conversation I've been part of or that I am aware of.

Q. Are you aware that, instead, Mr. Resnick, IQVIA has committed to its partners that it will continue to make its HCP identity data available to other DSPs and platforms?

A. I am extremely aware, yes.

Q. We have prepared a slide that reflects some of the additional DSP partners that IQVIA has actually extended a written offer to. Do you see that?

A. I do.

Q. I would like to ask you, Mr. Resnick, if IQVIA shares its data and has a data everywhere policy, why did IQVIA undergo the effort of extending additional written offers to other DSPs and partners in the ecosystem?

A. So this is a little bit -- so over the last couple months and particularly, frankly, as the government had called around to a number of our clients asking questions about foreclosure, we started to get a number of queries from our partners about whether that was in fact our intent. You know, initially, when the news was announced, no one seemed concerned. We didn't hear anything from our teams. But after the news started to circulate and some of the requests were made by the FTC to our clients, we started to get a level of concern. So our goal and objective was to knock it off. Our strategy is data everywhere, and let's put contractual language and let's put -- let's put, you know, our money where our mouth is on this, and let's reassure everyone that this is our strategy and let's contract it.

Q. Okay. So let's just look quickly at some of that documentation. Is this an example of an e-mail that was sent to another DSP?

A. It is.

Q. And do you see that there are several terms listed under IQVIA's commitment, the first one being that there is a minimum three-year term with options for renewal?

A. I do see that.

Q. And that the offer applies to IQVIA's HCP audiences data which includes the MDG and DMD data that the government has referenced throughout this proceeding?

A. I see that.

Q. Do you also see that there is no minimum purchase commitment?

A. I see that.

Q. And do you also see that the offer remains open for over a year after this transaction may close?

A. I see that.

Q. Let's go to the next slide and look at the actual contract that was offered to other market participants. Do you see that this lists a statement of work?

A. I do.

Q. And is that consistent with your understanding that IQVIA did in fact extend offers to others in the market who might be interested in a longer term renewal of their access to HCP identity data?

A. Yeah, not only have we extended the offer with the statement of work, we also have a team of seven people who we have dedicated to doing this full-time.

Q. Well, the Court has heard a lot about the TPA program, whether that might be used to actually foreclose data. So I don't think we need to rehash all of that. I just want to ask

you, as you are sitting here today, whether IQVIA intends to use the TPA program to foreclose data to its DSP partners.

A. Absolutely not.

Q. Does it intend to use the TPA program to spy on its competitors or other DSPs?

A. Absolutely not.

Q. Does it intend to use the TPA program to just roll out data in dribs and drabs or to delay access to data?

A. No.

Q. Let me ask you just a couple of questions about the potential integration if this transaction closes.

Could you describe to the Court how you would approach the integration of DeepIntent?

A. Sure. I mean, it's a hard question because we have delayed a lot of that thinking at this point. I can tell you that every integration is different. They are always complex. Our general strategy is to take our time, it's to be mindful and thoughtful, you are dealing with people as you bring them into the business. I think you could hear even today or the last two weeks in court references to Lasso and MDG and DMD. These are companies that have been a part of IQVIA for a couple of years, even longer than that in the case of MDG. So this stuff does not happen quickly. It takes time to work through, and we will be judicious, as we always are.

Q. And if down the line the transaction for some reason needed

to be unwound, could IQVIA do that?

A. Yes. I mean, I guess I would cite two things to that.

One, the -- DeepIntent is a fantastic company which we are super hopeful will join the IQVIA family. But at the end of the day it's IP. It's a handful of client accounts and people and all three of those are -- you can pull those out.

And secondly, for very different purposes, nothing to do with government questions, we have rolled out and divested other acquisitions that we have done over time. In fact, I just oversaw a divestiture in the last 24 months of a business that would fit better with another type of company, and that was five years after the acquisition.

Q. We are almost at time, Mr. Resnick, and I was hoping that we could just close by asking you, based on the information you have about the industry and your professional experiences and what you have learned from your teams and what you have heard in this hearing, could you just share with the Court your view of what the healthcare marketing/digital advertising industry looks like over the course of the next three to five years.

A. Yeah. Well, I think you established for me I may not be a digital advertising expert, but I am, I believe, pretty good at seeing a lit bit what's around the corner and building businesses and what's next. What I can say definitively about this market is it's barely started. I mean, we have seen, your

Honor, in the last 12 months everybody talking about ChatGPT and OpenAI. These were not things we knew about a year ago. These are ground-breaking, large-language models which are going to change the way that machine learning works. This has the potential to completely change digital advertising.

And just to be very kind of granular about this, if you think about the ads that we display today, we have pretty consistent ads that go across to different individuals. But if you can take the large-language models and that AI, you can actually build customized ads that have great context around that individual, the messages that they want to hear, and we are at any one of that technology being deployed into this market. So five years from now, we will not only see those big players today who are increasingly moving into that space, but a whole bunch of new startups who are leveraging these new machine-learning strategies to mine the Internet and to mine social and web in different ways to transform this market.

MS. FIEBIG: Thank you very much, Mr. Resnick. No further questions at this time.

THE COURT: I have just a couple of questions. First of all, let me ask, does IQVIA have a compliance system in place that provides, at least to relevant employees and executives, antitrust training.

THE WITNESS: We -- we do. We do have that. We have compliance programs that everyone needs to take and go through.

So, yes, we do.

THE COURT: The other question I have, one doesn't necessarily need to be an FTC lawyer or even particularly cynical to look at the offers that you have made more recently concerning TPA and the provision of data on an extended basis to say, well, sure, that's surely in response to the FTC's action, and where is the -- is there any enforcement mechanism with respect to that.

THE WITNESS: So, look, I don't know how we can, you know, fully demonstrate intent outside of, you know, we opened with Frank standing up at Digital Pharma East, making the pledge to the entire industry long before any of this was underway. We have consistently in our documents talked about our strategy as data everywhere. And I think as was pointed out, the contracts that we sent out don't have a data explosion date of when you make your decision. Those contracts that sit before the DSPs have a date of December 31, 2024. So they have a full 12 months after you have decided on this to make the decision. So this is our strategy. We have teams dedicated to doing it. We believe it is in our economic and strategic interest and mainly in our client interest because they are going to demand flexibility to pursue this strategy.

THE COURT: Thank you.

THE WITNESS: Thank you, your Honor.

THE COURT: We will take our break now and we will

come back——I will give you a couple extra minutes——at 10:55.

THE WITNESS: Thank you, sir.

MS. FIEBIG: Thank you, your Honor.

(Recess)

THE COURT: Everyone can be seated.

Cross-examination, Ms. Fleury.

CROSS-EXAMINATION

BY MS. FLEURY:

Q. Good morning, Mr. Resnick.

A. Good morning.

Q. I will be asking you questions today in an open courtroom. I have conferred with your counsel and I don't believe any of my questions will cause you to divulge confidential information; but to the extent a question I ask touches upon confidential information, please let me know and we can make arrangements.

A. Understood. Thank you.

MS. FLEURY: Your Honor, may we approach with a witness binder?

THE COURT: You may.

BY MS. FLEURY:

Q. I want to start this morning by talking about your decision to acquire both Lasso and DeepIntent.

You testified that you were ultimately responsible for the decision to buy both DeepIntent and Lasso, correct?

A. Correct.

Q. You testified this morning about a whole host of reasons you wanted to buy both companies, and you described what you saw as their complementary capabilities, right?

A. That's correct.

Q. But you weren't always sure you were going to buy both companies, correct?

A. I don't think we were always sure we were going to buy either company or both companies.

Q. So let's take a look at PX 1540, which is in your binder, and it is also going to be pulled up on screen, which may be easier because it is a text message conversation.

This is a text message conversation between you and Jay Margolis. And you have seen this before, correct?

A. I have.

Q. So this is a text message conversation between you and Mr. Margolis in March of 2022, and at this point in time, as you have just told me, you hadn't decided which or whether you were going to buy these two companies, correct?

A. Correct.

Q. And this time, in March of 2022, is months after that conversation you discussed with your counsel where Mr. Margolis came to your house shortly before Thanksgiving the year prior, correct?

A. That meeting was in November of '21 and we are now in March

of '22.

Q. Let's turn to the second page of this document, and around the middle of the page, at time stamp 13:07, you texted Mr. Margolis, "how are you going to run Lasso?" Do you see that?

A. Yes, I see that.

Q. Mr. Margolis responded one text down, "On with the guys right now. Pivoting towards DI."

DI means DeepIntent, correct?

A. I assume, yes.

Q. A few texts after that, you asked Mr. Margolis, "Walk away from Lasso?" And Mr. Margolis responded, "Potentially, yes." Correct?

A. That's how it reads, yes.

Q. Mr. Margolis also told you just below that that Lasso's "operating model is hugely problematic and we would have none of that baggage with DI." Do you see that?

A. I see it.

Q. In the next text, you asked Mr. Margolis, "Which one is the better strategic fit?" Correct?

A. That's what it reads, correct.

Q. And if we turn to the next page, you said in that second text there, "What if we gave them more upfront and assigned them to the overall IQVIA media case instead," referring to Lasso, correct?

A. Sorry, I just want to make sure I'm -- do you mind just showing me the prior, just so I can make sure the flow?

Q. Sure. "We can always rethink," and you have it also in your binder there.

A. Yeah, we are moving back and forth between conversations with DeepIntent and Lasso at this point, so I just -- I'm not 100 person certain which one we are -- walk away from Lasso. Okay.

Q. Maybe it would help if we move to the next text after "what if we gave them more upfront." Then Mr. Margolis said "publisher, measurement, audiences, keeping DI as a customer all get difficult." Do you see that?

A. Yes, I see that.

Q. When we spoke about this at your deposition, you said you don't know, didn't you know what Mr. Margolis meant when he wrote at the time keeping DeepIntent as a customer would get difficult if you acquired Lasso, correct?

A. That's correct, and still true today. I don't know what he meant.

Q. But then he wrote to you that "DeepIntent is the market leader in HC, further along in CTV and DTC, and helps us accelerate global." Correct?

A. Yes, that's what it says.

Q. And what is interesting about that text is that it is remarkably consistent with what you testified earlier this

morning. For instance, you testified earlier that DeepIntent was it further along in CTV, correct?

A. Correct.

Q. You testified earlier that DeepIntent was further along in direct-to-consumer advertising, correct?

A. I testified to that, and so I think the testimony we saw over the last two weeks also supported that.

Q. And you would agree with me that you thought at the time that DeepIntent would help you accelerate in a global sense, correct?

A. We had some preliminary discussions around global extension which had been put on pause, but, yes, that was part of the story.

(Continued on next page)

Q. So the only part that's different than what Mr. Margolis said here is he said DeepIntent is the market leader in HC, meaning HCP, correct?

A. Most likely yes.

MS. FLEURY: Let's turn to a new document, PX-1538.

Q. This is another text chain between you and Mr. Margolis and this one is from March 23 of 2021. At the bottom of the second page 002, at time stamp 13:52, you told Mr. Margolis you were going back and forth with Ari at startups. Here if you want to follow, I'm at 13:52: Ari is Ari Bousbib the CEO of IQVIA, correct?

A. Ari Bousbib, yes.

Q. We have not heard any testimony from Mr. Bousbib in this hearing, correct?

A. That's correct.

Q. Mr. Bousbib will be testifying for the first time in the merits proceeding later this month, correct?

A. I don't know about that.

Q. You wrote just below that: If we have five companies to workshop, what would they be?

Do you see that?

A. I see that.

Q. And then Mr. Margolis replied with his list just below. He wrote: Thinking. Number 1. Platformed analytics, Ala Komodo. And then his number 5 was an HCP platform.

Do you see that?

A. I see that, yes.

Q. And included with that he wrote: Not sure of the content, but something that gives us captive eyes, data, and ad placement, correct?

A. Yes.

Q. And this text message was roughly the same time period as the text we just looked at where you were trying to decide Lasso, DeepIntent, or both, correct?

MS. FIEBIG: Objection. I am not sure that that accurately reflects the dates. Just before he confirms that's correct, do you mean 2021 or 2022?

MS. FLEURY: You are correct.

Q. Here you were talking about, on March 23, 2021, about an HCP platform, correct?

A. I see the text message, but I don't have a lot of context for it.

Q. So let's talk about this time period in 2021.

MS. FLEURY: Thank you for that.

Q. When IQVIA was evaluating DMD for a potential acquisition, you testified that DMD was just an email asset earlier, correct?

A. I think I said predominantly an email asset.

Q. I'd like to turn to PX-1596 in your binder.

This is an email, dated May 28, 2021, from you to

Annie Wang, correct?

A. That's correct.

Q. Annie Wang was your executive assistant?

A. Chief of staff.

Q. The subject is key points. This was an email from you regarding the DMD acquisition, correct?

A. This was -- this was notes from a meeting that we had at the end of May, which were typed up.

Q. And this was a note you drafted regarding the DMD acquisition?

A. This was a summary of notes from a meeting. Whether I drafted or Annie drafted, I can't be sure, but those are a summary of the notes from a meeting from my email.

Q. You were summarizing here the key points from IQVIA's perspective regarding the DMD acquisition, correct?

A. That's what appears to be.

Q. Let's go quickly through a couple of these key points for why IQVIA should acquire DMD. If you go to the third key point, it describes why IQVIA has secret sauce.

Do you see where I am?

A. I do.

Q. DMD's secret sauce, according to what you wrote here, has multiple components, but two of them are compliant consented access to 6 million HCPs and a healthcare publishing network, correct?

A. That's what's written, yes.

Q. At the bottom of the page there you explained that the healthcare publishing network was founded by DMD 10 plus years ago to provide MDM and analytics work to healthcare publishers in exchange for consented physician access.

Do you see that?

A. I see that's what's written there. Again, I am not sure if I drafted this or if it was someone on my team taking notes, but I see the reference to it.

Q. If you go up to the seventh bullet, what are the synergies, it talks about complementing one key, which was an existing data offering that IQVIA had, correct?

A. Yes, that's correct.

Q. You also wrote that it complements MedData Group, correct?

A. That's correct.

Q. In the last sentence you wrote that DMD was the best player in town that go through activation measurement and optimization, correct?

A. Again, I don't want to quibble too much, but just for clarity, I don't know if I wrote this. These are definite notes from that meeting and that's what's written here.

Q. Since this keeps coming up, let's go to your deposition at page 138, lines 8 through 16:

"Q. My question was, you drafted this email -- sorry. Let me repeat my question.

This is an email from you regarding the DMD acquisition, correct?

"A. Yeah, it seems to be.

"Q. You summarized here the key points from IQVIA's perspective regarding the DMD acquisition, correct?

"A. Correct."

A. I don't think what I'm saying today is inconsistent. I'm not -- it was an email from -- that went from my inbox to Annie's. I just don't know if I'm the one who drafted it or not. It doesn't matter. I was a part of this meeting, regardless.

Q. Understood.

Let's go up to bullet 5. This, again, is still about the DMD acquisition. It says: What we plan to do it. Become the leader. HCP programmatic marketings, correct?

A. That is what it says. If you go to the DMD business case and you look at the reference to the $100 million, the vast majority of that revenue is in email.

So in the definition, which you are going to read in a moment, which is clear path to $100 million in two to three years, is email revenue. Programmatic was a very, very small percentage of this business, very nascent. I think Frank Lin and team testified last week that they believed there were some broader programmatic opportunities. But if you look at what the $100 million in two to three years is referring to, it's

email plus their existing technology offer, plus a small amount of programmatic work.

Q. I appreciate that context. But in this email summarizing the DMD acquisition, your number-one item for what we plan to do with it was become the leader in HCP programmatic marketings, correct?

A. I think it's a little bit like this case overall, which is what's the definition of programmatic marketing. This time, in this case, in this situation, if you look through the $100 million they are referring to, includes email. So email was part of our definition of programmatic. It's the only way you can get to the hundred million dollars in anything that we have.

MS. FLEURY: You can pull that document down.

Q. I believe you and other IQVIA executives have testified that foreclosing rivals from access to data is simply counter to IQVIA's mission. You spoke about that this morning, correct?

A. That is correct.

Q. We have just looked at a document where you were laying out the reasoning behind the DMD acquisition.

Now I'd like us to look at an email chain from some of your subordinates later in 2021, after the DMD acquisition was finalized.

MS. FLEURY: Let's pull up PX-1031: I'd like to go to

the bottom email in the chain, which is on PX-1031-005.

Q. This is an email from Dave Escalante to a variety of IQVIA executives who I think all report up to you, either directly or indirectly, is that right?

A. I actually don't know a number of the names here. Dave does report up through me.

Q. Dave Escalante is now your direct report, right?

A. Dave Escalante is a direct report today.

Q. Mr. Escalante sent this email with high importance with the subject line: Plan to move off PP.

Do you see that?

A. I see it.

Q. He wrote: We have arrived to an important checkpoint in our relationship with PulsePoint. And he continued in item number 1 that they have moved to position themselves against us.

Are you with me?

A. I'm following along, yes.

Q. In item number 2 he says: We now have a restructured sales bag combining the best of OneKey, MDG, and DMD with new positioning.

MDG stands for MedData Group?

A. It does.

Q. For item number 3 Mr. Escalante says: We have platform partners, DeepIntent and Lasso, who are aligned to complete

versus PulsePoint, correct?

A. That's how it reads.

MS. FLEURY: Now, let's go up to the last email in this chain. On the first page, PX-1031001.

Q. This one is from Bob Whiting to Frank Lin and Claire O'Brien on October 22, 2021.

Are you with me?

A. I'm with you.

Q. Mr. Whiting says to Mr. Lin in the second sentence: The conversation with WebMD Internet brands landed where we thought it would, with IQVIA and WebMD parting ways. Dave is emailing everyone in a little bit with this news and his direction on encouraging brands to move off of PP.

First, do you have an understanding of how IQVIA encourages to move off of competitors like PlusPoint?

A. This is the first time I've seen this email. I have no idea what it is referring to. I can only tell you that WebMD remains an important partner with multiple relationships to us, and what I understood from the expert testimony this week is PlusPoint is continuing to thrive with or without access to IQVIA data.

So I'm not sure. This is not my email, it was never sent to me, and it's never been discussed with me, and it's inconsistent with my understanding of our relationship with WebMD.

Q. Understood.

Item number 1 of Bob Whiting's email says: Frank, in addition to an overall sales deck, I do think we need to have a November update deck that just covers all of the major implications of what a unified IQVIA plus DMD plus MDG means to the marketplace. This could include sunsetting our support for working with PlusPoint effective. Date TBD.

By sunsetting, that's a term meaning cut off access to IQVIA data for PlusPoint specifically, correct?

A. I don't have any means to understand exactly what he meant by sunsetting. I can tell you this never reached me. This is not consistent with the approach that we had then and it's not consistent that the approach that we will have moving forward, period. So this is -- I don't know Claire. I do know Bob. These are two sales team members on the team having a discussion that has -- if it was escalated to my level or up here, it would stop at this point. This is just not our strategy and not our approach.

Q. Let's look at PX-1100. We are going to start at the bottom email in the chain, which has the subject line: Time-sensitive data differentiation one pager. That email begins on PX-1100-003. This is in May 2022.

Now, this email is from David Reim, who at this time still has a DMD email address, but at this point in time all of the people in this chain are IQVIA executives, correct?

A. I don't know all the names on this chain.
Q. But at this point in time IQVIA owned DMD, correct?
A. I'm telling you I am not familiar with all the names on here.
Q. I totally understand. I am just trying to establish that if people have DMD email addresses, at this point in time they are IQVIA executives.
A. They are IQVIA employees. I think I might push back on the term executive.
Q. Fair enough. Fair enough.

They are IQVIA employees.

A. DMD at this point would be considered an IQVIA employee, yes.
Q. So this email -- the context for this email is a presentation -- if you look at the first sentence, is a presentation for an IQVIA customer, correct?
A. This is the first time I've seen this, so you have to give me a second.
Q. Sure.
A. And I was not cc'd on this note.

OK. I have read the top of it.

Q. I am just trying to get a sense of the context. You are preparing -- not you, but IQVIA is preparing for a client pitch regarding IQVIA's data, correct?
A. I don't know if it's IQVIA data. I don't know what the

actual pitch was or wasn't. I don't know what Bayer was asking.

Q. Understood. Fair enough.

Let's go to the final page of this document, PX-1100-004. I want to look at the portion that says: Why does sourcing of data under a single privacy policy. This paragraph relates some facts about IQVIA's data that I'd like to confirm with you.

The first sentence says: IQVIA obtains HCP opt-in from 57 healthcare companies who all use IQVIA's privacy policy.

Is that correct?

A. I can't confirm it's correct. I just wouldn't know. You'd have to ask someone on the team that question.

Q. I'd also like to confirm the sentence a couple of sentences later: Unlike alternatives, which might only source from a single owner or who aggravate data across multiple privacy policies, IQVIA is the only data provider to provide consent at scale and under a single privacy policy.

Is that true, to your understanding?

A. I can't confirm whether it's true or untrue. Frank Lin would have been the right person to ask that question to. You are asking me to comment on something I just don't know.

Q. Let's continue on to the next paragraph. I will just ask a couple more questions.

Is it true that with 11 billion in sales IQVIA is the clear market leader in many categories of healthcare data?

A. Again, I'm trying not to sound like defensive, because these are very broad statements that were difficult for me -- we talked earlier about data being very different in terms of a use case. I can see what's written here. It's written by a sales team. I don't know how -- I wouldn't know how to substantiate it. For me to agree with it, I would need much more of a fact base to it.

Q. Have you heard arguments, as you've been sitting in the hearing, from defendants' executives and attorneys that IQVIA doesn't have any unique data?

A. I'm sorry. Can you repeat the question.

Q. As you've been sitting here in court, Mr. Resnick, have you heard arguments from the defense side that IQVIA doesn't have any unique data?

A. Doesn't have any unique data?

Q. Yes.

A. I think -- I am kind -- I am not sure what I'm trying to prove in that. There are multiple-use cases and multiple different types of data. In some areas we are very proud of the data that we bring. In other areas we are not. In these specific cases that are on the demonstrative here, I would argue, and I think you heard pretty consistently from others who testified, that there are a number of players who have

high-quality data in this space.

Q. Understood.

What I'm trying to confirm with you, looking at this document, is the truth of sentences like the last sentence of the same paragraph: Competitors are forced to use other substandard data sets to provide their advanced targets, which limits their effectiveness.

A. I see the sentence on the piece of paper and I a hundred percent expect our sales teams to position it that way.

But I also, over the last couple of days, heard Andrew Kress yesterday use very similar language talking about his audience data. And as we went through a number of other vendors, part of which the hearing was closed, but they all said similar things. When you're positioning your data and when you are talking to your clients, this is how you do it. This is what you do.

Q. Let me ask you a more specific question. The second sentence in that paragraph we have been discussing, if a brand wants to further refine their audience for digital engagement, IQVIA's ability to use its own data to create advanced audiences provides our customers with the highest quality data throughout the targeting pipeline.

So specifically to this advanced audiences aspect of IQVIA's data offerings, is that something that all of the other companies you've been talking about all offer, or is that

something that is unique to IQVIA?

A. I don't think any of this is unique to IQVIA. I didn't have an opportunity to sit through all of them, but I'm pretty sure I heard Andrew Kress yesterday talk about how unique his were and say he believed his data was better. Each of us are going to position it in a particular way in a sales document, but there are pluses and minuses of everything. It depends on the type of question that's being asked by the client, the type of therapeutic area, and there is going to be puts and takes on each.

Q. Did you also hear Mr. Kress testify that he licenses his data from other companies?

A. I did hear that, but I am not sure how that changes my answer to the last question.

Q. Understood.

Let's go a little bit further down on the page of this document where it says: This is only an effective point -- on note at the end there: This is own an effective point if competitors are barred from using IQVIA data. Then the question is: Isn't IQVIA still providing these other data sets to WebMD and therefore PlusPoint?

Do you see that?

A. I see it.

Q. Let's go up to the email on Sunday, May 15, 2022, from Claire O'Brien. This is the bottom of PX-1100-002. She

responds to Mr. Reim's question by saying: On your question at the very bottom of your notes, on advanced audiences, Dave E. can confirm, but I think even though WebMD has access to OneKey and some other IQVIA services, I believe that PlusPoint, even though part of the Internet brands family, is restricted from that data.

Do you see that?

A. I see it, yes.

Q. And Dave E. here, am I correct, that refers to Dave Escalante?

A. Most likely, yes.

Q. If we go to the top email in the chain, Mr. Escalante definitively answers the original question at the bottom of the document: Good morning. FYI, PP does not have access to OneKey, or any IQVIA advanced data. I shut that down last September. Dave.

So for at least one company IQVIA shut down access to maybe not all data, but at least to key pieces of data, correct?

A. I am not familiar -- my understanding of our relationship with WebMD is that we have a pretty broad data license relationship. We have had that for a considerable amount of time. And as we saw through the TPA process, not a single one of PlusPoint's requests for access to our data have been refused. So I see this. I don't have any context. I'm not

forwarded on any of these notes. This is not a decision I made. And what we have heard testified is inconsistent with that fact.

Q. I'd like to shift gears a little and talk about something that has come up repeatedly in this hearing and in your testimony this morning and that is whether IQVIA's TPA program gives IQVIA the ability or not, if it so chooses, to disadvantage its rivals in access to its data.

To start, Mr. Resnick, you do not oversee the TPA program, correct?

A. That's correct. It's overseen by our legal department.

Q. You are not in a position to know the specifics of which TPAs are granted, denied, or delayed, correct?

A. I am not in that position, no.

Q. Let's take a look at IQVIA's TPA policy, which is PX-1785. This is a policy document to help IQVIA offices around the world establish and run their TPA programs, correct?

A. This is the first time I've seen the document, but I'll go along with you.

Q. Let's go to PX-1785-20. It says at the top: What you should consider when reviewing and approving TPAs.

Do you see that?

A. I do.

Q. Do you see under offering owner the second line: When in doubt, seek a second line of support: Executive level, IQVIA

level, or global TPA team. Correct?

A. That's correct.

Q. So executive level, that might include you or, for example, Dave Escalante.

A. That would be examples of executives. I cannot recall a single time legal has ever reached out to me to weigh in on a TPA question.

Q. Then it says under: Things to consider when reviewing a TPA with check boxes. The second one is: Vendor is a direct competitor.

Correct?

A. That's one of the considerations that's outlined, yes.

Q. The next one is vendor is a competitor to IQVIA but not directly of your offering, correct?

A. Correct.

MS. FLEURY: Let's go to PX-1785-24.

Q. At the top of this page it says: Vendor specific review rules. This is the current list referenced when a vendor secondary review is required.

Do you have an understanding of what a vendor secondary review is?

A. It's not a term that I'm familiar with, but -- it's not a term -- it's not something that I see.

Q. So if I'm understanding this correctly, these are specific vendors, specific companies that when they come up in a TPA

request, the first line review, which is the assigned offering owner reviews, but also they are required to seek second line review.

Is that your understanding from looking at this?

A. Again, this happens not at my level, so I don't know the frequency by which this happens. This is a process that's run by our global legal team. I don't the situation or circumstance by which a second line review would come under consideration.

Q. And within that second line review one of the people you can go to is Dave Escalante, correct?

A. That is correct. But just to clarify, this is an outdated document because Dave Escalante ran our reference assets before he ran into digital. The caveat there is reference offerings, so it's not germane to digital.

Q. It's not your understanding that this document was from the 2022 time period?

A. I didn't see it, if that's what you showed to me. But, regardless, the bracketed component there says reference offerings. But continue.

Q. Mr. Escalante, as we talked about earlier, is your direct report, correct?

A. Yes. After Jay Margolis, he is my direct report.

Q. Are you aware of whether IQVIA maintains watch lists beyond these specific set of companies that are subject to additional

review under the TPA program?

A. The only company that I am aware of is Veeva. There could be other companies. But as far as I'm concerned, the only one is Veeva. And that is for very specific reasons of IP theft.

Q. Let's take a look at PX-1295. I'd like to look at time stamp 12:29. This is an individual named Christopher Beggs, who, to my understanding, currently works at IQVIA or at least as of this time had an IMS health email address.

Do you see where I am?

MS. FIEBIG: Your Honor, just before this questioning along these lines proceeds, I think we would request that the courtroom be sealed for discussion of these documents.

MS. FLEURY: The FTC has no objection.

THE COURT: Will that include in-house counsel or no?

MS. FIEBIG: No. In-house counsel can remain.

THE COURT: In-house counsel can remain. Otherwise, if you're not part of the litigation teams, please leave the courtroom.

MR. PERRY: Mark Perry.

Your Honor, the business folks for IQVIA are here. That's OK because these are IQVIA documents.

THE COURT: OK.

MR. PERRY: Thank you very much.

(Pages 1260-1286 SEALED)

(In open court)

THE COURT: Does the FTC have another witness? I'm sorry. Does IQVIA have another witness?

MS. FIEBIG: Yes, your Honor. I can tell you from here. IQVIA calls as its last witness Dr. Anupam Jena.

ANUPAM JENA,

called as a witness by the defendants,

having been duly sworn, testified as follows:

THE COURT: Mr. Obaro.

MR. OBARO: Thank you, your Honor.

May we approach?

THE COURT: You may.

DIRECT EXAMINATION

BY MR. OBARO:

Q. Good afternoon, Dr. Jena.

A. Good afternoon.

Q. Can you briefly describe your educational background to the Court.

A. Sure. I went to MIT, studied economics and biology; then moved to Chicago, went to medical school there and did my Ph.D. in economics, both at the University of Chicago; and then moved back to Boston and trained in internal medicine at Massachusetts General Hospital.

Q. Do you currently practice medicine?

A. Yes, I see patients at Mass General Hospital, which is the

largest teaching hospital in Boston, as part of the Harvard system.

Q. And with respect to your work as a physician, can you walk the Court through your expertise.

A. Sure. I am an internal medicine doctor and I treat hospitalized patients, so people who have things like pneumonia, heart failure, difficulty breathing, in the throes of the pandemic patients of COVID 19. SO that's my Clinical work. But I'm also a professor at Harvard Medical School. I'm a professor of healthcare policy and medicine.

THE COURT: Can I ask you to get a little closer to the microphone.

THE WITNESS: Absolutely, yeah. Is that good?

THE COURT: Better, yes.

THE WITNESS: All right.

BY MR. OBARO:

Q. Are you also an economist, Dr. Jena?

A. Yes.

Q. And what's your area of expertise as an economist?

A. Because of my medical background, I am a healthcare economist, so I study questions at the intersection of medicine, health, and economics. I also trained in the fields of labor economics and industrial organization. I work on a range of issues related to the organization and economics of healthcare markets and also studying issues around the

economics of physician behavior. What do I mean by that? Trying to understand what is it that shapes, that drives the treatment decisions that physicians make, including pharmaceuticals, and also try to understand things like how information affects physician prescribing.

Q. And have you published any articles in that regard?

A. Yes. So I have published probably 200 peer-reviewed articles in journals like the *New England Journal of Medicine, Journal of Health Economics*. I would say more than half of those, so a hundred or more, relate to the use of large-scale prescription and medical claims data as well as physician characteristics data, and I work with these kinds of data sets all the time to study questions about physician behavior, physician prescribing, and how information affects those things.

Q. And how have you -- can you elaborate more on how you have used the data sets that you have just referred to.

A. Sure. So one of the core things we want to understand in economics and medicine is what is it that drives physicians to do what they do. A lot of factors influence physicians, one of which might be information. And so in a lot of my work I'm using large scale data that looks at individual physicians, link the to characteristics of those physicians to understand how those characteristics, how external factors like messaging or information that they receive, how public policies might

influence their prescribing.

Q. Have you used these data sources as well as an expert witness in litigation?

A. I have. In probably a half dozen cases or so I have done large-scale quantitative or empirical analysis estimating the impact of marketing on physicians, on their prescribing behavior.

Q. How does your expertise relate to HCP programmatic advertising?

A. So I'm an economist and a physician. I'm not a programmatic advertiser. But nonetheless, I think there is a tremendous amount of similarity.

So what is it that happens in programmatic advertising? Well, you start with a company that has a drug or device or some healthcare product that it wants to sell, and it has some physicians or nurse practitioners providers that it wants to target. So that we call, in this industry, audience generation.

The same is true when I conduct a study. I have a set of physicians that I want to study, perhaps cardiologists. We call that inclusion criteria. What are the criteria by which physicians enter into a study that I might perform?

In programmatic advertising, HCPs are programmatically advertised to. And one thing that's important to figure out is is that working in some respect? And you might do that by

doing measurement, measurement of prescribing changes.

That measurement function, that concept is analogous to what we do in research. If I'm studying the affect of an intervention, for example, information provided to a prescriber, I need to identify the cohort or audience of physicians that I am looking at and I need to measure whether or not that information or any other intervention influences that behavior.

Q. Do you have an example of a research study that you have done where you have looked at how physician behavior is affected by messaging?

A. Yes. So here I have a couple of examples.

So one is, there is a drug called testosterone. Many of us have probably heard of what testosterone is. In 2014, the FDA issued a communication related to cardiac risks for people who are using testosterone, and what we were interested in understanding is how does that information, this information provided to prescribers, how did it influence their prescribing of testosterone? So that was a study that we performed.

Q. And what was your result of that study?

A. So the overall finding was twofold. One is that after the messaging to physicians, we see a decline in testosterone prescribing. Why? Because there are some safety concerns that were raised.

And the second is that in our study, we linked

prescribing data to physician characteristics data, what you might call audience data. We linked those two together, and we can see who are the types of doctors who change their prescribing more or less after this information is made available to them, and what we find is primary care doctors actually stop prescribing or prescribe less testosterone after that messaging compared to nonprimary care doctors.

Q. That's helpful. Thank you.

Do you have another example you could share with the Court?

A. Yeah, I do. And maybe just so it's clear for all of us what does it have to do with programmatic advertising, so it's the same concept. So if you have a company that is selling testosterone injections and they want to figure out whether or not if they programmatically target physicians or nurse practitioners to prescribe more testosterone, they would have to figure out an audience to do that, and that would be HCPs that are prescribing the drug. It has to have measured the outcomes. They look for changes in prescribing behavior. So that's the bottom left of this exhibit.

The same thing is true in my research. I would identify an audience of HCPs who are prescribing that drug, in this case testosterone, and I would measure whether or not there is a change in behavior. So I just want to make sure it is clear how the research relates to programmatic

advertising.

You asked if I had another example, is that correct?

Q. Yes, I did.

A. I do.

We are in New York, and many of you probably read *The New York Times*. There was a study or a report in *The New York Times* not too long ago which looked at a drug called Minoxidil. Minoxidil is a hair loss drug. It is applied to the scalp typically. *The New York Times* published an article that looked at small case studies from dermatologists who had been using Minoxidil in a tablet form, something you take by mouth. And what the study said, *The New York Times* article suggests, is that if patients take it by mouth, that might prevent hair loss or treat hair loss.

So, to me, that's an information shock. What is the impact or what was the impact of that information on prescribing? So I looked at that directly, and what you see is, just within days after *The New York Times* article is released, we start to see prescribers prescribing more oral Minoxidil. Again, it's an example of how to generate an audience or cohort of physicians who prescribe oral Minoxidil and in measuring the change of prescribing after information is provided to them.

Q. In the course of this research, have you worked with data companies?

A. I have quite a bit, yes.

Q. And have you worked with pharmaceutical companies outside of working with data companies?

A. Yes. So on the data company side there is a company called Doximity that is a social network for physicians. They are also a provider of what is called HCP identity or audience data. I have worked closely with them over the last decade.

And in terms of pharmaceutical companies, I've done a lot of work over the last couple of decades consulting on work communicating value or assessing and then communicating value to prescribers and to patients.

MR. OBARO: Your Honor, I would like to move to qualify Dr. Jena as an expert in economics, the practice of general medicine, and the use of healthcare data for evaluating physician prescribing and treatment behavior.

THE COURT: Any objection?

MS. SIVA: This is Nita Siva on behalf of the Federal Trade Commission.

Your Honor, we maintain the same objections made in our motion *in limine* to exclude the testimony of Dr. Jena.

THE COURT: Very well. I am taking that under advisement after I listen to his testimony. For the time being, he will be allowed to testify as an expert in economics, the practice of general medicine, and the use of healthcare data for evaluating physician prescribing and treatment

behavior.

And with that, we will take our second break. We will go 20 minutes. We will get back together at 45 minutes after the hour.

(Recess)

THE COURT: Everyone can be seated.

Mr. Obaro.

MR. OBARO: Thank you, your Honor. We will call calm back, Dr. Jena.

THE WITNESS: Thank you.

BY MR. OBARO:

Q. Dr. Jena, what overarching opinions did you reach in this case?

A. There are two overarching opinions that I have, and I have prepared a demonstrative so you can sort of see as I say things, these things.

So the first is there are a lot of different data providers to IQVIA's audience and claims or prescription data. So that's the first opinion. And then the second is that if you think about healthcare provider or HCP, or DTC or direct to consumer advertising, a more unified approach to those two, bringing them under the same umbrella, would benefit healthcare marketers, life science companies, healthcare companies, but also I think doctors and patients as well.

Q. So let's take each opinion at a time, starting with the

first one. What is the basis for your opinion that there are a number of alternatives to IQVIA's audience and claims/prescription data?

A. So here is a sort of economic framework that economists have used that I applied for opinion one. And the first is to start by studying the data sources that are used in various stages of the HCP programmatic advertising campaign. So what are the data sources?

The second thing is to drill in the weeds a little bit and try and identify the features, the characteristics of the data that are needed for programmatic audience generation or measurement.

The third thing is, once we have the first two things in place, what are the data alternatives that might be available. And those are the first three things.

And the fourth is just to look for evidence and analyze evidence in the record of whether other companies, including demand-side platforms, or DSPs, are using and/or switching to alternative data sets.

Q. So you referenced audience data. What is audience data?

A. At a high level, you know, a company has a drug or medical device or some healthcare product that it wants to sell. It's a set of HCPs healthcare providers that it wants to target, that's their audience.

Q. And where does audience data come from?

A. At its core level, it comes actually from publicly available information, the bedrock of which is something called the National Provider Identifier, or NPI.

Q. And what type of information is generally attached to an NPI?

A. Lots of information. So, for example, the NPI——I have an NPI——the name of the provider, physician's name, their affiliation, are they affiliated with Mt. Sinai in New York, are they affiliated with Mass General in Boston, or are they a solo practitioner, things like the address, their gender. It's also linkable, and I have linked and others have linked it to things like specialty, where you trained, what medical school you went to, what year you graduated. Lots of data is available on providers in this country.

Q. And is this information generally publicly available, the information you just referenced that attached to an NPI?

A. It is. And this is just to give you a sense of what this looks like. I could have pulled this up on a computer here in the courtroom. But if you go to the NPI registry, you can literally just Google it and you put in a physician's name, you put in my name, Anupam B. Jena. It says my credentials M.D., Ph.D., gender male, it provides my own NPI number, tells you my practice address. You could go further, look at my specialty, which is internal medicine. So this data is available.

Q. And can you look up certain physicians or create lists or

categories of physicians?

A. Yes. So you could use the exact same publicly available website to do something like that. So let's say that you are interested in identifying cardiologists, okay, in Houston, Texas. So what would I do? I would go to the NPI website, I would see this data field here that says NPI type, individual, that means an individual doctor or nurse practitioner. I would then look at the taxonomy description. That just means your specialty. So cardiovascular, that's what you see there. And in my example I said, let's look at cardiologists in Houston, Texas, so I would go to the city and state text at the bottom, and then I would just click okay, and what will happen is that you will get a list of HCPs, cardiologists in this case, in the city of Houston who practice cardiology. You see this thing at the right that says internal medicine, that means that these are all doctors like myself who train in internal medicine, then they do cardiology. So these are all cardiologists in the city of Houston.

Q. And do companies typically just pull this sort of data and use it?

A. It's a starting point. This data can be linked to other physician characteristic data that is available from a number of different places, so companies that sell this sort of data, I call this physician characteristics data in the field of economics and medicine that's how we call it. In programmatic

advertising, they call it audience data or ACP identity data. Those data sets start with this foundation right here and then you can add on to it.

Q. For this litigation, did you do an analysis of whether there are alternative data sources to create audiences for HCP programmatic advertising?

A. Yes. As I mentioned I worked with a lot of these kind of data before, and so I had the expertise to undertake that sort of analysis and that's what I did.

Q. And what was the analysis you did?

A. So in my report, and I will show it to you here, I created an exhibit. I will say what the exhibit is. It is titled "Comparison of Data Fields Across Select Providers of HCP Audience Data." What it is is the following. There are a number of companies that provide audience data. This is a subset of those companies. There is more than what you see on this screen. And what I did is identified a set of these companies and looked to public information about what data elements they possess, and these are data elements that we know to be important in HCP programmatic advertising, the types of data elements that are required to do that. Things like the NPI, specialty might be very relevant for the reasons I just described. If you want to sell a cardiovascular drug in Houston, you want to know who the cardiologists are, perhaps.

And I went through this for each one of these

companies and identified which data elements they possess, and what you can see here is there is sort of a sea of green arrows. A lot of these data elements which are important for programmatic advertising are possessed by a lot of these different companies, including Symphony, for example, which I have worked with myself.

Q. Can you tell us a little bit about some of the other companies that are on the list here as well?

A. Sure, yeah, so IQVIA is at the bottom. Definitive Healthcare is a company I think we have heard about. Veeva Crossix, that name has been mentioned. The NPPES is not a company, but it's that foundational NPI registry that I just showed us screenshots of a few moments ago.

Q. How did you find the information to fill out this chart?

A. I and my team basically looked at each one of these companies' publicly available documents to understand, including things like data dictionaries, what data elements they possess.

Q. What does the fact that there are many providers of this same data say to you?

A. As someone who has used a lot of this data and a lot of these kinds of data, some of which are not even on this screen, it says to me that if a particular data product, let's say Symphony's or IQVIA's, were not available, that there would be other audience or physician characteristics data that someone

could turn to.

Q. What else did you do to assess the relevance of these alternatives?

A. I also looked at the record and in my framework that you saw earlier, I described the importance of looking at evidence in the record about whether or not companies use different HCP audience databases. They do, whether they switch to and from them, they do.

Q. And did you look at evidence of whether DSPs were switching or using different data sources?

A. I did, and I find that they do.

Q. Let's turn to claims and prescription data. What are medical claims and prescription data?

A. So at a really high level, medical claims refer to claims for medical services that are provided by healthcare professionals. So if you can to a doctor's office and they perform an exam on you, evaluate you, set up a management plan, perform a lab test, that's a medical service that would show up in something called medical claims data. If that doctor prescribes a prescription for you, a drug, you fill that prescription, that shows up in prescription claims data.

Q. So I will ask the same question I asked with respect to the audience data, which is, for the claims and prescription data, where does that come from?

A. So let me show you this in a story that I think is

important, because one thing I think that is important is to sort of demystify where these data come from. There are a lot of names that we have heard about, but where do these data come from?

So imagine you've got a woman who has high cholesterol, and she goes to see her doctor. So this is a woman who is seeing her doctor, and they discuss treatment options.

The doctor says, okay, I would like to start you on a cholesterol medication. So what happens is the doctor then writes a prescription for that medication, probably now they are doing it by computer and not by a print pad. We do that still. So the doctor writes the prescription.

The patient says, all right, I want to take this medication. So she goes to her pharmacy. Maybe it's a Walgreen's or a CVS pharmacy. She fills that prescription. And she does so by paying a copayment. She pays $5 or $10 at the counter, and she gets her medication.

And then what happens is that the insurance company that this woman has pays the remainder of that drug cost back to the pharmacy. And so let's say she has Blue Cross/Blue Shield. Blue Cross/Blue Shield sends a payment to the pharmacy for that drug.

What's created here? What's created here is a prescription event, a claim. A doctor with a particular NPI

saw a person on a given day, prescribed a given drug. That drug was paid for by her insurance company——Blue Cross, Cigna, Medicare, Medicaid, whatever it may be——and that generated a prescription claim. It's a record of what happened that ties a doctor or a nurse practitioner or any provider to something that they prescribed.

So this is the origin. This is where these data come from.

Q. And where does that data go initially?

A. So this is -- I just gave you one data point. Turns out there are millions and millions of such encounters that are happening across the country every year, and all of those ultimately go to a few places, insurers that are insuring women like the one I just talked about and pharmacies.

So, for example, if Blue Cross/Blue Shield has a lot of individuals who they insure, all of those prescription claim events they will have data on. Blue Cross/Blue Shield will. Medicare will. State Medicaid agencies will. The pharmacies will also have that information. So Rite Aid or Walgreen's or CVS, these are large retail pharmacies. They have that information as well.

So you can kind of think of it as the first step of aggregation of that single data point, which becomes millions of data points and first ends up here.

Q. Now, how does the data that you have described flow from

the first point of aggregation, which is the insurance companies and the pharmacies that you have described? How does that flow from them to HCP programmatic advertisers?

A. Good question. So the way that it flows is it flows through companies that aggregate that data. So there are a number of different companies, many of which we have heard about in this room, some of which are here now on this slide.

What these companies do is that they aggregate, they assemble this data across multiple different places. It's not their data, it's the insurer's or the pharmacy's data --

(Court reporter confers)

A. It's their data, not the company's, but they aggregate it or it originates from insurers and pharmacies. They aggregate it, they assemble it, they process it, they make it usable to people who want to use the data, but that's the process.

Q. Have you licensed this sort of data before?

A. I have in both my research, in part of litigation, also I mentioned I worked with a lot of life science and healthcare companies in the past, so I have worked with them using a variety of these kinds of data.

Q. And how are these types of data used in HCP programmatic advertising?

A. So these are -- again, just to level set, these are prescription claims data. There is also medical claims, but these are prescribing events.

They are used in two ways:

So the first is if you want to generate an audience of providers that you want to reach, you could start by saying I want to target cardiologists. But you might want to be a little bit more refined in that. You might want to be a little more advanced and say it's not just cardiologists, I want to target cardiologists who prescribe this particular blood pressure or cholesterol medication. These data allow you to do that because you know the NPI. You know the healthcare provider that prescribed that medication, and so you can do that. That is sort of an advanced audience.

And the second thing is in the measurement side. If you are doing advertising to healthcare providers, whether it is programmatic advertising, detailing doctors in their offices, sending them print journals with advertisements in there, whatever you are doing, you want to measure the efficacy of those interventions, so that's a measurement issue.

Q. And are these prescription and claims data available publicly?

A. They can be purchased. These data here are available to be used and they are used, but there are other versions of these data that are less granular than what you see here, but they are sort of illustrative of what these data look like.

I have an example which I think would be really useful to look at, if that's okay.

Q. Yes.

MR. OBARO: Your Honor, may we approach?

THE COURT: Sure.

MR. OBARO: Thank you.

THE WITNESS: So, first thing, your Honor, I will move the water from this computer.

Go ahead, sir.

BY MR. OBARO:

Q. When you are ready, Dr. Jena, can you show us how one might access claims or prescriptions data.

A. Sure. So you can see it on your screen, I hope. So I am going to take you to a website that is maintained by CMS, The Centers for Medicare and Medicaid Services, and this is data and information on drug prescribing in the Medicare Part D program. So this is a huge program, elderly Americans, significant users of prescription drugs, an important population to look at, and many people are interested in this group.

So I am just going to scroll down here and show you what you can see on this public website. So I'm going to click "view data" and what I'm going to try to show us is how we can identify a group of physicians who are prescribing a certain drug.

So let me start by saying the following. I mentioned earlier that we might be interested in cardiologists. So I'm

going to find cardiologists in this data. That's prescriber type, and it is going to contain the specialty of cardiology. And I want to be really targeted here. I don't want to just look at cardiologists, I want to look at cardiologists in, let's say, Houston. So let's go to the prescriber city. I'm going to type in Houston, Houston, Texas.

But I want to go further than that. I want to identify cardiologists in Houston who prescribe cholesterol medication, let's say Lipitor. Lipitor goes by the generic name atorvastatin. So I'm going to find the generic name, and I'm going to write atorvastatin. then I'm going to click "apply filters."

Then I'm just going to scroll down, and what I have for you here is all of the cardiologists in Houston, Texas, who prescribe the drug atorvastatin. That's what we have here. Let me walk you through these columns because it's really interesting and illustrative of what these data are and where they come from. So the first column says prescriber NPI. That's the National Provider Identifier. That is the person who prescribed the drug.

The next column you see it says prescriber last org name. This is the last name of the doctor, so it says, for example, in the second row, Benrey, Dr. Jaime Benrey. You scroll over a little bit to the right, you can see this person, this doctor is in Houston. They are a cardiologist. We also

have some interventional cardiologists here as well. And they prescribed atorvastatin, just like I said.

Now, suppose I'm a company and I have a limited budget, and I don't want to just target all cardiologists in Houston who prescribed this drug, but I want to focus only on the highest volume prescribers. The way I would do that is look at that column at the very right of the screen that says "Tot claims," "total claims." That's the total amount of times that that provider has prescribed that drug to the Medicare population in the city of Houston.

You could use these kinds of data to try to conduct that sort of analysis. So these data are publicly available and within a few moments we are able to construct a list of physicians in the city of Houston who prescribe atorvastatin.

Q. Thank you, Dr. Jena.

Dr. Jena, what was the purpose of the demonstration?

A. The purpose of the demonstration is to show that the underlying data that I just showed you a few slides ago, the underlying data from which companies are basing their products, are coming from places like this. This data is obviously less granular than what you could buy, but it's free. It's less granular, it's not the same, but it illustrates that these data are coming from these kinds of places.

THE COURT: Doctor, can I ask you a question? Is it safe to assume that the data that you have been discussing and

that you rely on in your work don't include individuals who are uninsured?

THE WITNESS: So it depends on what kind of data. Great question. So in this case here, these are individuals who have Medicare insurance. Most prescription drug use in this country is coming through people who are insured. There may be places where you can get data on people who are uninsured. Typically -- or you will not see it in claims data. And the reason why is because a claim means that a pharmacy or a doctor billed an insurance company. So if there is no claim, that means that person doesn't have insurance.

The way to get inside into that population, which I think is important, is things like electronic health record data, which is a different type of data than what we are talking about here.

THE COURT: Thank you.

THE WITNESS: Yeah.

BY MR. OBARO:

Q. Dr. Jena, what does your analysis and the demonstration tell you about whether or not there are alternative data sources for prescription claims data?

A. I will just unplug this, if you don't mind. So what it says is that there are alternatives. And we have heard that from a number of different parties in this litigation. But this is, again, illustrative of the fact that these data that

we are talking about, these companies, they are procuring, assembling data from other places under other underlying sources.

Q. And did you analyze whether other DSPs use other data providers?

A. I did, and there is a lot of evidence in my report and evidence has been talked about in testimony in this litigation that is consistent with that.

Q. Dr. Jena, I would now like to move to your second opinion. Can you remind the Court what your second opinion is?

A. Sure. I don't know if I can pull this up on my slides here, but -- I can't see it on my screen, but I can actually see it on your screen, if it's okay. So my second opinion is --

MR. OBARO: One second, Dr. Jena. We can -- may we approach?

THE COURT: You may.

(Pause)

A. Now it showed up on my screen. Power of technology.

Can you ask your question again if you don't mind?

Q. Yes. Can you share with the Court what your second opinion is.

A. Sure.

My second opinion is that a more unified approach to healthcare provider HCP and DTC, direct to consumer,

advertising would benefit a lot of different healthcare parties, drug companies, medical device companies, anybody who is selling healthcare products, patients, consumers, healthcare marketing agencies, but, again, primarily I'm a doctor, so I'm thinking about patients and doctors.

Q. And what's the basis for your second opinion?

A. I would say it is threefold.

So one is my medical training and experience as a physician. There's been a lot of important testimony in this case. I don't know that it's involved a lot of HCPs. And so I have that, I think, important, unique perspective.

The second is I have looked at, and I am aware of and know from my other research and as well as from this case, academic literature that looks at the impact of advertising on patient engagement, patient education.

And the last thing is there are documents and trial testimony that speak to whether clients in this case who are thinking about healthcare companies or marketing agencies, whether or not they prefer coordinated campaigns, and some do.

Q. Dr. Jena, do you get served with digital advertisements as an HCP?

A. I do, yes.

Q. And what kind of digital advertisements do you get served with?

A. I get them from a lot of different places. I get drugs, I

get devices, I get healthcare equipment, like scrubs and stethoscopes, probably even seen wheelchairs in the past, imaging, lots of different places.

Q. And when you mentioned drugs earlier, do you get advertised with prescription and over-the-counter drugs?

A. Both, yes, yeah.

Q. What are some of the benefits of marketing to physicians?

A. Medicine is dynamic. It's changing a lot. This is also a very new industry, obviously, but medicine has been going through this for a long time. Every year there are new medications that come out, there are new uses of existing medications. So it's a lot for doctors to sort of keep and nurse practitioners and other providers to keep in their minds. So marketing can be useful for informing them about what's out there that's new and new uses for something that they already may know about.

Q. How does effective marketing to physicians affect patients?

A. I think the short answer is it helps doctors make sure that the right patients get on the right drugs at the right time.

Q. And does marketing to patients also have healthcare benefits?

A. It does. We call that direct-to-consumer, though I like to say it's direct-to-patient advertising, and that's important and there is literature on this, for patient education, for patient engagement with their medical providers, both of those

things.

Q. I want to talk about having a coordinated message between the HCP and the patient. Can you talk about whether there would be benefits to having a coordinated message between the HCP and the patient?

A. Yeah. Happy to do so. Again, my perspective as a provider, so I'll maybe kind of come back to that story that we talked about earlier, remember I said there is a woman who went to go see her doctor because she had high cholesterol, and the doctor wrote a prescription for a drug, a statin medication, and suppose that medication didn't work. Maybe it didn't work because her cholesterol wasn't lowered low enough. Maybe it didn't work because she had side effects with the medication and so she needed to be on something different. It turns out there is a new medication, brand new medication that comes out into the market, it's called a PCSK9 inhibitor, uses a brand new technology, it lowers LDL levels, cholesterol levels dramatically, much lower than statin medications, but it's new so people are a little concerned about it. And the other thing is that it is an injection. It's not something that we just take by mouth, like our patient took Lipitor. So there is a lot of uncertainty about using an injection for something like high cholesterol, even though the clinical evidence suggests that it might be a very good drug for this person.

So what happens? Both the doctor, who is a healthcare provider, both the patient, who is a quote/unquote consumer, they both start seeing advertisements that are targeted towards them for the drug Repatha. The woman on the right, the patient, sees ads that are focused in the consumer way. The doctor gets ads that are focused on the things that a provider might care about. But there is some uniform messaging that's happening at the same time.

What happens then? They have a discussion in the office. They agree to trying this medication which, again, is a new medication, the doctor may not have heard about it before because it's knew, the patient may be apprehensive because it's an injection, but that information, that discussion sort of normalizes what might come to follow. So the doctor writes that prescription once again, and then the patient goes to CVS Pharmacy, fills it.

So if I were to sort of summarize the potential promise here from a clinical perspective, it's really sort of the right information, the right ads for the right person at the right time.

MR. OBARO: Thank you, Dr. Jena. I have no further questions at this time.

THE COURT: Ms. Siva.

MS. SIVA: Good morning, your Honor. This is Nita Siva for the Federal Trade Commission.

May my colleagues approach with exhibit binders?

THE COURT: Absolutely.

CROSS-EXAMINATION

BY MS. SIVA:

Q. Good afternoon, Dr. Jena.

A. Hi. How are you doing?

Q. Good.

Dr. Jena, isn't it correct that it's physicians -- it's not physicians but pharmaceutical companies who purchase programmatic advertising?

A. Yeah, I'm not aware of physicians purchasing programmatic advertising. It's usually going to be healthcare companies. It may be pharmaceutical companies. It could be biotechnology companies, could be medical equipment companies, imaging companies, device companies, but healthcare companies.

Q. And it's pharmaceutical companies or healthcare companies who decide which data providers to use for HCP programmatic advertising, correct?

A. I think it would be the underlying companies perhaps in tandem with agencies like marketing agencies that they would be working with who would figure out who to use.

Q. And it is those pharmaceutical companies and healthcare companies that know what their needs are for HCP programmatic advertising, correct?

A. I think it would be accurate to say that they know their

needs best because they are the ones who are doing it. They are paying for it.

Q. And Dr. Jena, you didn't reach out to any pharmaceutical companies or healthcare companies to determine how they advertise digitally.

A. In this case here I didn't talk to any programmatic advertising companies or healthcare companies about their use, and the reason why is because it wasn't necessary for my conclusions. I'm looking objectively at what the data are, how they are used, not why they might use it for one purpose or another.

Q. And you have not been involved in programmatic advertising campaigns, correct?

A. Yes, that's correct. I'm an economist, a physician, and a professor, but I'm not a healthcare programmatic advertiser.

Q. And you haven't consulted with a pharmaceutical company or life sciences or healthcare company on how it should conduct a programmatic advertising campaign, correct?

A. Yeah, I would say that's correct. I have had a lot of experience with those sorts of companies on messaging to the public, physicians and nonphysician public, but not on the programmatic advertising side.

Q. And in your report, you haven't analyzed the effectiveness of an HCP programmatic advertising campaign compared to another method of digital advertising, such as, advertising on a social

platform, correct?

A. Yes, that's not part of my report. That analysis that you just described wasn't necessary for the conclusions that I reached.

Q. Dr. Jena, you testified that there are many sources of HCP audience and prescription data for programmatic advertising, correct?

A. Yes, I would say that is correct.

Q. But, Dr. Jena, you have never evaluated data specifically for the use on a programmatic advertising campaign.

A. It is correct to say that I have not used it for programmatic advertising because, as you asked a moment ago, I'm not a programmatic advertiser, but it is important to recognize that the data that are being used are the same as being used in programmatic advertising, that are being used for health economics outcomes research, that are being used in research like my own, that CMS uses for its public policy evaluations, the data is the same and, as I hope I conveyed to you and the Court, the methodologies are also the same as well, identifying an audience, a cohort of physicians, studying the effect of an intervention, in this case a programmatic advertisement versus something else.

(Continued on next page)

Q. But you don't know what pharmaceutical companies are looking for when they are choosing a data provider for HCP programmatic advertising?

A. I have not spoken to pharmaceutical companies about programmatic advertising. I have worked with a lot of pharmaceutical companies who use IQVIA, Symphony, Optum, other large-claims databases physician characteristics data, and they tend to use a lot of different data. They don't just use one data source.

I am familiar with the sort of things that they are concerned about, as they are the things that I would be concerned about as a researcher. The functionality is basically the same thing when it comes to programmatic advertising. It just is used for programmatic, as opposed to any number of things that that data could be used for.

Q. But you testified just a moment ago that you didn't reach out to any pharmaceutical companies or healthcare companies regarding who they are using for programmatic advertising, correct?

A. So I just say as a general answer I haven't spoken to the pharmaceutical companies specifically about who or why they are using particular products.

If you look at my report, I do describe what various companies, including DSPs, demand-side platforms, are using, so I have that in my report, but I haven't had phone calls or

in-person meetings with those types of individuals.

Q. In fact, you have testified in this case during your deposition that this case is the first time you've ever considered alternative data sources for HCP programmatic advertising, correct?

A. I didn't know a lot about HCP programmatic advertising until this case. It's a pretty new field. There is no -- as far as I know, no academic literature on HCP programmatic advertising. It's really, really new. The types of data that are used I've been working with for decades, and many of the types of data that are on this schematic here I have familiarity with, and I can speak to those data attributes and how they are used and perhaps why they are used. But, again, I'm not a programmatic advertiser.

MS. SIVA: Your Honor, for the rest of my examination I'll be asking questions that will likely reference material that's been marked confidential, so I ask for the courtroom to be sealed.

THE COURT: Very well. Again, if you are not part of the litigation teams, please leave the courtroom.

(Pages 1320-1341 SEALED)

THE COURT: Ms. Fiebig, does IQVIA rest?

MS. FIEBIG: We do, your Honor.

Just, in resting, we wanted to thank the Court for your time and attention and opposing counsel for all the professionalism throughout these proceedings.

THE COURT: Very well.

MS. FLEURY: Your Honor, the FTC does have a housekeeping issue to raise, if the Court has time for that now.

THE COURT: Sure.

MS. FLEURY: This is very administrative, but we wanted to talk about the findings of fact that are due next Thursday and get some guidance from the Court on the complicated issues of sealing, and we have been dealing with confidentiality in this open proceeding.

One idea, and something we have done in some past cases, is to allow both sides to initially file the findings of fact entirely under seal and then have a deadline to move for more specific targeted confidentiality.

When that deadline is, given the time of year, is something I would be happy to take some guidance from the Court on. And to the extent you need those determinations to be made before you make your final ruling, we will be flexible. But that was one thing that I didn't have a chance to confer with defendants. I'm happy to about the specifics and the

deadlines. But I wanted raise that because that deadline is approaching next Thursday.

THE COURT: Why don't you confer with IQVIA. I'm happy to wait a couple of weeks for the ultimate unsealing of whatever can be unsealed on the public record, but it should not be much, much more than that. Obviously, I will want to see the stuff that's not sealed so that I can make my determination.

MS. FLEURY: You will have access obviously to everything. This is about public access. To that end, we agree, your Honor, and the FTC is aligned in terms of wanting public access, including to exhibits that weren't necessarily introduced in this proceeding that were on both sides' list. We will also confer about a procedure to present to the Court on that issue.

THE COURT: OK.

MS. FLEURY: The last thing, like defense counsel, we just want to thank the Court for their time and attention and in particular the court staff, including the very hard-working court reporters who dealt with quite a cast of characters, particularly on our end, many of whom had never spoken in court before. We really appreciate the opportunity and the time and attention.

THE COURT: I think, more importantly, they heard a lot of words that they never heard before.

I told you folks that I would give you a little bit of guidance, at least in terms of what I would hope you would include in your submissions of next week.

First of all, we did discuss a glossary. To the extent that you can provide a glossary of the various terms that have been discussed, including, just to name some of the obvious examples, HCP programmatic advertising and audience identity activation measurement, that would be very, very helpful to the Court. There are dozens of others. It would be useful if they were to be submitted on consent, although I understand there may be some differences in how you would want to go about that, and that there will not be consent -- I am not going to ask you to provide one definition of the relevant market in this case, so you don't have to do that.

In terms of matters that I am particularly interested in, the parties' dispute in their papers, the standard to be applied, which is a little surprising to me. There are any number of different areas of law. Although there is a lot of disputes between the parties that come before me, generally speaking, the standard is not at issue. There is a standard, one side says they meet it, the other side says they don't, but rarely do I get a dispute concerning the actual standard.

Again, it may be less of a difference than I'm thinking about right now, but right now we have fair and tenable from the FTC and serious questions from IQVIA. Is

there really a difference? If so, what is that difference? What is the extent and importance of that difference?

It would be helpful if the parties were to provide at least a brief history of the industry. I understand that it doesn't appear to be particularly long, but it would be useful to have some sort of arc in terms of when it began and how it has developed from your perspective, and what do the cases say about how courts should analyze younger markets. Are there any special considerations that should be raised?

Just very quickly on the relevant market, as I understand it, the FTC indicates that the relevant market is at least geographically international global in scope. I think there has only been one mention of international scope here. I believe one of the witnesses indicated that international is important for their pharma clients because they are international corporations. Other than that, there has really been no discussion about the international scope. To the extent that the FTC is going to continue to advocate for an international geographic scope, I would want some discussion of that.

I have to say, one specific area, I was very confused this morning concerning the Google testimony. Does Google allow for HCP programmatic advertising or not? Do they allow for targeting of HCPs or not? I heard the testimony, and I heard there was some back and forth about that, so that would

be useful.

On the issue of substitutes, there may be an issue here, I don't know, that reasonable substitutes for the IQVIA products or the combined entity products may be available or may be available from different sources. So what do the cases say about -- you have the merged entity, but you also have a cafeteria of different choices that you can rely on to substitute the products. Am I describing that accurately? Is there case law about that? Does there have to be like a single-source substitute or can you substitute by reference to multiple sources?

There has also been a lot of discussion about ordinary-course documents. We have seen a lot of emails. We have seen a lot of marketing materials. I know that there are cases that say, you don't need to put a lot of emphasis on these types of materials. You don't necessarily need to describe the relevant market by reference to what the participants are saying in the moment, in the competitive moment. So how should I address analyzing the documents, in particular that the FTC has identified.

I think those are the general things. I know that there is still the issue of whether or not I will consider the entirety of Dr. Jena's testimony. That will be addressed in the ultimate opinion.

Is there anything else?

Ms. Fleury.

MS. FLEURY: No. We appreciate the Court's guidance.

THE COURT: Ms. Fiebig.

MS. FIEBIG: We do as well. Thank you very much, your Honor.

THE COURT: Is anyone just a little bit sad like I am?

I also just want to say, I say this not always; sometimes, although it's always sincere, not with the same level of sincerity. But I have been very, very favorably impressed by the presentation by both teams. I was at first shocked that you would require so many lawyers, but after seeing how much work went into this and how many different witnesses and how many pieces of paper, I am now shocked that it took only this amount of people to put it all together. You've been very useful to the Court in terms of the materials that you have provided and how efficiently you presented your cases, so thank you very, very much for that.

We will see you next Friday. It will be across the street in my courtroom.

I hope that you can at least take one of the days from this weekend off. Take good care. Good night.

(Adjourned)

INDEX OF EXAMINATION